

The Shedding of the Stomach Lining by Birds.—The stomach of a bird is lined by a corneous layer which, as is well known, strips very readily from the mucous coat after death. The fact that it sometimes separates naturally during the life of the bird is, however, less widely known.

In Newton's 'Dictionary of Birds,' p. 918, is summed up the knowledge of this occurrence in the case of Old World birds. It is said: "As a rule the cuticle... is continuously wearing away and being reproduced, but many cases are known in which most of the lining is suddenly cast off and ejected through the mouth, as has been observed in *Pastor roscus*, *Sturnus vulgaris*, *Turdus viscivorous*, *Carine noctua*, *Cuculus canorus*, and especially in *Buccros*." These cases are discussed in European publications but in American journals the phenomenon has received little attention.

A most interesting observation in the case of *Himantopus mexicanus* shows, that not only is the cuticular coat of the gizzard of birds worn down by constant trituration or disgorged *in toto*, as stated in the above quotation, but that it is also sometimes shed off in the gizzard and there ground up and disposed of in the same manner as food. The bird in question was collected at St. Joseph Island, Texas, August 14, 1905. In examining its stomach contents, which was largely made up of aquatic hemiptera and coleoptera and grasshoppers, several bits of a translucent horny substance were separated for further study to determine their identity. Turning to them a brief examination convinced me that the material was a fragmentary stomach lining. This conclusion has subsequently been confirmed by most careful comparison with the present functioning lining of the same stomach, with which the fragments agree in every detail of structure. The present lining is hard and readily peels off, as is usual in birds.

Suggestive data are on hand in the case of a few other species, but in the above mentioned instance there seems to be no doubt that the stomach lining had been shed. Observations on this point are necessarily of a desultory nature and for that reason the case here noted is now put on record.—W. L. McATEE, *Washington, D. C.*

Virginia Creeper as a Winter Food for Birds.—Occasionally, we discover some favorite food supply which attracts nearly all the birds of the neighborhood. Such is furnished in some localities by the Virginia Creeper. On account of the climbing habit of this vine the berries escape being covered in winter and thus increase in importance to the birds with the severity of weather. Through all the cold, zero or below, through periods of sleet and snow and ice that sealed up everything on or near the ground, the writer has observed several species of birds feeding upon these berries.

The observations were made on the campus of the University of Indiana,

where several of the old buildings are thickly covered with the creeper. In the fall, winter, and early spring the vines are hung with innumerable clusters of berries and to them are attracted many of the winter resident birds. A year or more ago, at almost any hour, a glance through a window would reveal several birds, some of them perhaps within reach, clinging to the vines, feeding greedily. On one occasion, on opening a window, the writer surprised seven birds, representing six species, which were almost hidden in the vines encroaching upon the window opening. Of these a Flicker and a Cardinal whisked away but the others, including two Bluebirds, a Chickadee, a Tufted Titmouse and a White-breasted Nuthatch, trusted him and continued the feast. At times two or three Titmice could be seen twisting in and out among the berries, and brilliant Redheads often came. Indeed the number of charming new glimpses of birds made us almost wish there were Virginia creeper every where.

Bluebirds were the most constant visitors to the vines and a flock of them fed almost exclusively upon the berries. Each winter they frequented a tree midway between two great vine-covered walls and seemed never to leave the vicinity except for water. They were observed during one winter on practically every day from October 20 to February 20. Flickers relished the fruit almost as well. They liked to feed in vines upon which the sun was shining, and at one time five of these handsome birds were seen together on a thickly covered wall. On another occasion two Flickers, two Red-headed Woodpeckers and six Bluebirds feeding in the same place formed a pretty and most animated group.

An idea of the relative numbers in which birds of twelve species came to the berries may be obtained from a tabulation of several typical lists made on winter days in 1901, 1902 and 1903. Nine such lists have been selected and the totals for each species follow: Bluebirds, 43; Flickers, 21; Robins, 15; Tufted Titmice, 7; Juncos, 7; White-breasted Nuthatches, 4; Red-headed Woodpeckers, 3; Blue Jays, 3; Chickadees, 2; Cardinals, 2, and Chewink, 1.

The last named bird would not be expected to visit a busy college campus often, and in fact this was one of only two such occurrences noted in four years. The reason for the visit to the berries is plain: nearly all other food in the country was under a coat of ice. On the day we were honored by the Chewink, six other species, or seven in all, were seen in the vines, and two days previously nine were observed.

Such liberal patronage shows conclusively how birds value the Virginia creeper. The plant retains its fruit almost half the year and is therefore particularly valuable as an early spring bird food. To those who care to attract winter birds the Virginia creeper, both from its usefulness in this respect and on account of its decidedly ornamental appearance, is to be recommended most highly.—W. L. McATEE, *Washington, D. C.*

The Michigan Ornithological Club.—The annual meeting of the Michigan Ornithological Club was held in conjunction with the annual meeting